C1850-1
11/16/87

PACKAGING

THE CAHNERS MAGAZINE FOR DECISION-MAKERS/NOVEMBER 1987

Surprise....
They're Not Frozen

PO3918824 (J0447 SE
CONGRESSIONAL INF SVC
SRI ACQUISITIONS
4520 EAST WEST HIGHWAY
BETHESDA MD 20814

PACKAGING

Del Monte pumps new life into 'canned' vegetables

In an effort to bring "canned" products into the microwave generation, Del Monte is turning to retortable plastic trays. No refrigeration is needed for vegetables in this new package. The products are shelf-stable just like canned vegetables. Consumers microwave and serve the vegetables in the trays.

The new product is being tested in two markets, Phoenix and Seattle. According to Del Monte, consumer response is much greater than anticipated. Vegetables in the retortable plastic trays have a firm texture and a fresh taste, comparable to frozen vegetables. They are priced at the low end of the frozen vegetable scale, and a little higher than premium canned vegetables.

Supermarkets are excited about this concept, too. It gives them a value-added product that doesn't require space in the frozen food section, which has been flooded with new items in recent years. In addition to the problem of not having enough space, the expense of operating frozen food cabinets is enormous.

All of this bodes well for retortable plastic packaging. Some big names and some big money are behind this concept. That commitment has resulted in significant R&D expenditures over the past few years, and the fruits of those efforts are now starting to appear commercially.

In addition to Del Monte, several other companies are moving forward commercially with products in retortable plastic containers. And dozens of others have active R&D programs, many of which are said to be approaching full-scale test marketing.

After a long wait, it appears that retortable plastic packaging is finally poised for significant growth in the food industry.

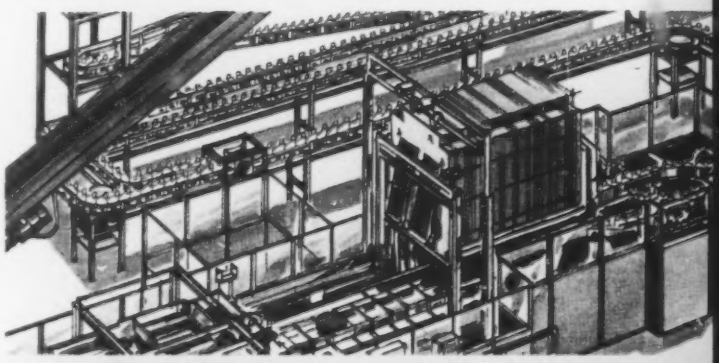
James R. Rowe

EDITOR

PACKAGING formerly Package Engineering including Modern Packaging (ISSN 0746-3820) is published monthly, except in January and March when two issues are published, in national, demographic and separate editions by The Cahners Publishing Company, A Division of Reed Publishing USA, 275 Washington Street, Newton MA 02158-1630. William M. Platt, President; Terrence M. McDermott, Executive Vice President; David Wexler, Group Vice President; Jerry D. Neth, Vice President/Publishing Operations; J.J. Walsh, Financial Vice President/Magazine Division; Thomas J. Dellamaria, Vice President/Production and Manufacturing. Circulation records are maintained at Cahners Publishing Company, 270 St. Paul Street, Denver, CO 80206-5191. Phone 303/388-4511. Second-class postage paid at Denver, CO 80206-5191 and additional mailing offices. Postmaster: Send Form 3579 to our Denver office. PACKAGING formerly Package Engineering including Modern Packaging, copyright 1987 by Reed Publishing USA. Saul Goldweitz, Chairman; Ronald G. Segel, President and Chief Executive Officer; Robert L. Krakoff, Executive Vice President.

Del Monte's new package
Retortable plastic trays are chosen for vegetables.
Page **10**

Valvoline's new lines
Twelve new packaging lines are installed for motor oil.
Page **54**



1987 Salary Survey
Packaging "decision-makers" respond to questions about compensation and other issues.
Page **46**

WestPack Report
Here's a look at some of the new developments exhibited.
Page **74**

CONTENTS

THE STAFF

MIKE WISNER
Vice President and Publisher

R. BRUCE HOLMGREN
Editorial Director

JAMES R. RUSSO
Editor

MERLE MULLINS
Managing Editor

ROSS HEUER
Senior Editor

MELISSA LARSON
Senior Editor

GREG ERICKSON
Senior Editor

MARK SPAULDING
Associate Editor

LISA McTIGUE PIERCE
Assistant Editor

H.O. RANGER
Technical Editor

DAVID HEINLY
Washington Bureau Chief

JOHN PETER
Editorial Consultant

ANTONIOS PRONOITIS
Vice President and
Director of Art Department

JUDY WHITT
Associate Director of Art
Department/Art Director

MARK RUSSELL
Assistant Art Director

GILBERT MUÑOZ
Director of Graphic Production

RALPH A. BURRIS
Production Supervisor

ANN HANES
Advertising Production Manager

NANCY COOPER
Director of Advertising Contracts

BARBARA A. PIKE
Circulation Manager (Denver)

EDITORIAL OFFICES
DES PLAINES, ILL. 60017-5080
Cahners Plaza
1350 E. Touhy Ave. P.O. Box 5080
312/635-8800

ERNIE KUMMER
Director, Corporate
Reprint Services

M.R. ROBINSON
Vice President Research
Bureau of Marketing Research

LARRY HAYS
Research Director

DIANN HIGGINS
Administrative Services

MARY WILLIAMS
Manager, Marketing Services

THE PACKAGING GROUP
PACKAGING/USA
R. Bruce Holmgren
AUSTRALIAN PACKAGING
/ AUSTRALIA
Norman MacLeod
EMBALLAGES/FRANCE
Marie Therese Van Gheluwe
IMBALLAGGIO/ITALY
Lita Santocanale Riggio
DAGENS INDUSTRI/SWEDEN
Ake E. Andersson

DAVID SISK WEXLER
Group Vice President

A CAHNERS PUBLICATION

VOLUME 32 NUMBER 13

PACKAGING NEWS

Surprise! They're not frozen 10
Del Monte unveils shelf-stable vegetables packed in plastic retortable trays

PET beer bottles are a continuing success for Canadian brewery 16

Squeeze-Fresh bottle is Minute Maid's newest weapon in O.J. war 17

Promotional booklet ends Lea & Perrins' hanger hang-up 18

PACKAGING FEATURES

SPECIAL REPORT

PACKAGING's 1988 Salary Survey 46
Salaries increased to an average $44,000 while average age of respondents fell to 42 years

New developments sparkle at WestPack '87 74
Innovative containers were the highlight of the show, but new equipment also had some ideas to show

PACKAGING OPERATIONS

Plant of the Month: Valvoline's 12 new lines 54
Planning and teamwork pay off as twin lines quickly meet efficiency goals

STATE OF THE ART

New palletizing systems boost efficiency 64
Big changes in machinery and materials are raising speed and cutting costs

MARKETING

New graphics capture milk market 71
The psychological approach to designing graphics pays off for Joyvalle's UHT milk

PACKAGING TECHNOLOGY

Controversy over CFCs 80
Alternatives are available to chlorofluorocarbons blamed, in part, for depletion of the ozone layer

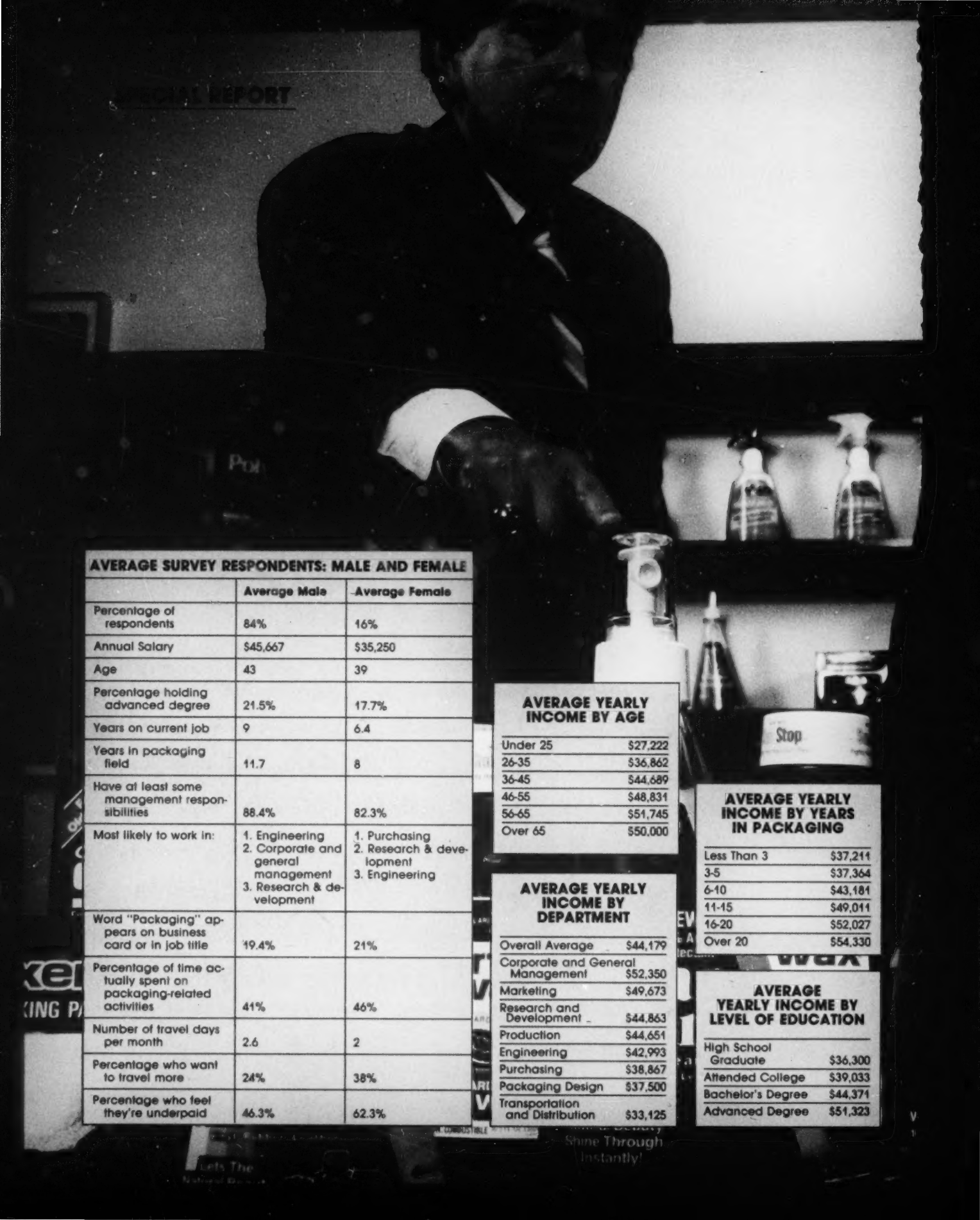
Five-fold increase in labeling achieved with air-jet unit 90

Five stretch-wrappers turn out one million packages a week 91

EDITORIAL	5	STATISTICS	41	CLASSIFIED ADS	101
PEOPLE	20	NEW EQUIPMENT	82	ADVERTISERS INDEX	107
CALENDAR	30	NEW MATERIALS	92	WRAP UP	108
ASSOCIATION NEWS	34	PACK MART	100	READER SERVICE CARD	109

PACKAGERS IN THIS ISSUE

Coca-Cola Foods	17	Impact Products	18	Old Bushmill Distillery	16
Colgate-Palmolive	31	Joyvalle	68	Pine Mountain Corp.	16
Conners Brewing Co.	17	Land O' Lakes, Inc.	28	Princess Borghese	29
Del Monte	10	Lassonde et Fils	18	Publix Supermarkets	91
General Nutrition Corp.	17	Lea & Perrins	18	Schlage Lock Co.	16
G&J Greenall Ltd.	18	J. Lohr Winery	18	Universal Grinding	90
I&D, Inc.	31	McDonald's Corp.	80	Valvoline Oil Co.	54



AVERAGE SURVEY RESPONDENTS: MALE AND FEMALE

	Average Male	Average Female
Percentage of respondents	84%	16%
Annual Salary	$45,667	$35,250
Age	43	39
Percentage holding advanced degree	21.5%	17.7%
Years on current job	9	6.4
Years in packaging field	11.7	8
Have at least some management responsibilities	88.4%	82.3%
Most likely to work in:	1. Engineering 2. Corporate and general management 3. Research & development	1. Purchasing 2. Research & development 3. Engineering
Word "Packaging" appears on business card or in job title	19.4%	21%
Percentage of time actually spent on packaging-related activities	41%	46%
Number of travel days per month	2.6	2
Percentage who want to travel more	24%	38%
Percentage who feel they're underpaid	46.3%	62.3%

AVERAGE YEARLY INCOME BY AGE

Under 25	$27,222
26-35	$36,862
36-45	$44,689
46-55	$48,831
56-65	$51,745
Over 65	$50,000

AVERAGE YEARLY INCOME BY DEPARTMENT

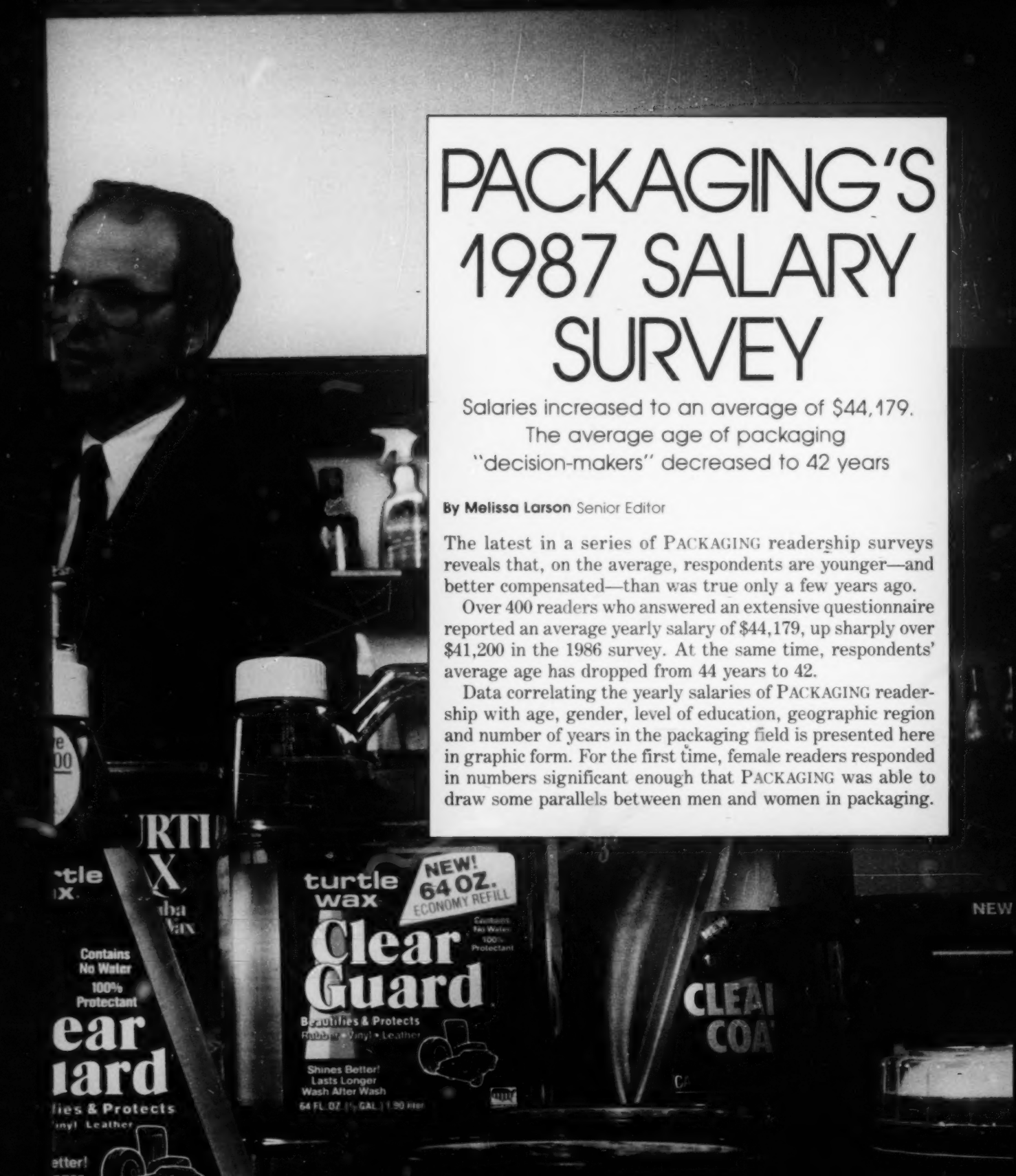
Overall Average	$44,179
Corporate and General Management	$52,350
Marketing	$49,673
Research and Development	$44,863
Production	$44,651
Engineering	$42,993
Purchasing	$38,867
Packaging Design	$37,500
Transportation and Distribution	$33,125

AVERAGE YEARLY INCOME BY YEARS IN PACKAGING

Less Than 3	$37,211
3-5	$37,364
6-10	$43,181
11-15	$49,011
16-20	$52,027
Over 20	$54,330

AVERAGE YEARLY INCOME BY LEVEL OF EDUCATION

High School Graduate	$36,300
Attended College	$39,033
Bachelor's Degree	$44,371
Advanced Degree	$51,323



PACKAGING'S 1987 SALARY SURVEY

Salaries increased to an average of $44,179. The average age of packaging "decision-makers" decreased to 42 years

By Melissa Larson Senior Editor

The latest in a series of PACKAGING readership surveys reveals that, on the average, respondents are younger—and better compensated—than was true only a few years ago.

Over 400 readers who answered an extensive questionnaire reported an average yearly salary of $44,179, up sharply over $41,200 in the 1986 survey. At the same time, respondents' average age has dropped from 44 years to 42.

Data correlating the yearly salaries of PACKAGING readership with age, gender, level of education, geographic region and number of years in the packaging field is presented here in graphic form. For the first time, female readers responded in numbers significant enough that PACKAGING was able to draw some parallels between men and women in packaging.

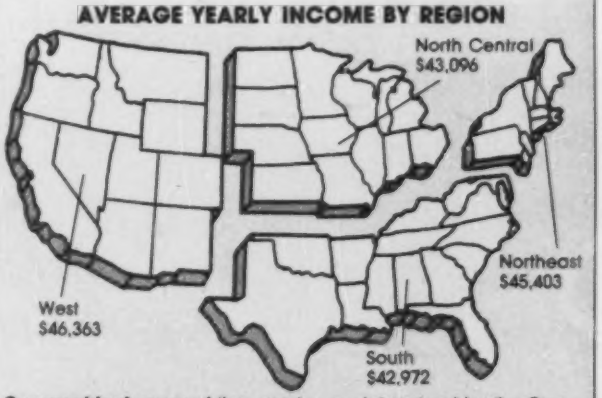
Our readers' opinion on the number of packaging-related trade shows and conferences? "Keep them coming!"

Readers also shared their opinions on a number of today's important packaging issues. For instance, a majority of respondents (66%) feel that "problems concerning the recyclability of plastics will adversely affect the competitive future of the plastic container." A similar majority disagree with the statement, "Federal agencies and industry groups have not cooperated enough to try to keep American consumers safe from tampering."

And, by a slim majority (53% to 47%), the survey group disagreed with the oft-repeated belief that "most important new packaging technology originates in Europe rather than the U.S."

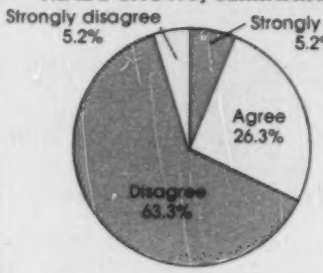
PACKAGING's latest survey generated more data than can possibly be included in these pages. We'll periodically be passing along more findings in coming issues. ■

AVERAGE YEARLY INCOME BY REGION



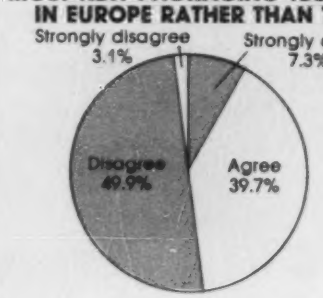
Geographical areas of the country, as determined by the Census Bureau, have an impact on annual salaries. The Western region leads in salary with an average of $46,363, followed by the Northeast, North Central and Southern regions. The North Central region had the most respondents to the survey with 32 per cent.

'THERE ARE TOO MANY PACKAGING-RELATED TRADE SHOWS, SEMINARS AND EXHIBITIONS.'



Contrary to the views of packaging suppliers, who feel that there are too many shows, our readers apparently feel they need as much information as they can get.

'MOST NEW PACKAGING TECHNOLOGY ORIGINATES IN EUROPE RATHER THAN THE UNITED STATES.'



The controversy over where most of the new packaging innovations originate was debated by respondents. Those who disagreed with the statement won out, but by a narrow margin.

PACKAGING READERS: A DIVERSE GROUP

Periodically over the years PACKAGING has done this salary survey, we've commented on the diversity of the packaging field, and the people who are involved in it.

This year's survey proves it again. Although the industries our respondents belong to break down in roughly the way we would expect (41 per cent in food, another 25 per cent in either pharmaceuticals or industrial products, and the rest scattered over several others), the size of our readers' companies ranges all over the spectrum, from under 25 employees to over 1000. No one company size represents more than 18 per cent of the survey. Clearly, packaging is a vital function in firms of all sizes.

Those involved in packaging also work in a variety of departments. Twenty-one per cent are in engineering departments themselves, with another 4 per cent listing their department as "packaging design."

Research and development claims another 14 per cent; production departments are home to 11 per cent, and purchasing was listed by another 14 per cent. Corporate and general management, and marketing departments together claim 24 per cent of our group. Again, a wide range of today's manufacturing workforce is involved in packaging to some degree.

A whopping 81 per cent of survey respondents reported that the words "package" or "packaging" don't appear anywhere in their titles, or on their business cards—another indication of the way packaging responsibility is spread over several departments in the average company.

Only 25 per cent of the group reported that they spend 75 to 100 per cent of their workdays involved in packaging-related activities. Another 11 per cent spend 50 to 75 per cent of their time with packaging; 23 per cent spend 25 to 50 per cent of their time with packaging; and a full 40 per cent of those responding spend less than 25 per cent of their time in packaging-related activities.

PLEASE RATE THIS ARTICLE

How would you rate this article? To reply, circle the appropriate number on the reader service card:

Outstanding	451
Above average	452
Average	453
Below average	454

MELISSA LARSON
Senior Editor

"We'd like to thank all those readers who took the time to answer our questionnaire. If you weren't part of the random test group who were asked to fill one out—we'd still like your opinion. Feel free to write us throughout the year if you have a strong opinion or comment on anything to do with your job in packaging. We're interested!"

CONTROVERSY OVER CFCs

Chlorofluorocarbons (CFCs) used as blowing agents for foam packaging are blamed, in part, for depletion of the ozone layer. However, alternatives are available

By **Mark Spaulding**
Associate Editor

Back in 1974, American scientists began detecting a decrease in the earth's protective ozone layer. They found that deterioration of the ozone was being caused chiefly by chlorofluorcarbons (CFCs), a group of chemicals whose chlorine component can stay in the atmosphere for 100 years.

In response, the U.S. banned the use of CFCs in 1978 from aerosol propellants, the major use for these chemicals in America at that time. In the following decade, however, CFC use increased dramatically around the world as a cooling agent for refrigerators, air conditioners and freezers.

Then, in 1985, a hole was detected in the ozone layer above Antarctica. The seriousness of the situation led 31 nations in May to agree to a 20 per cent cutback on CFC production by 1992.

Despite the U.S.'s lead in eliminating CFCs, an area of concern is the compound's continuing use as a blowing agent for polystyrene foam containers. The two major agents—CFC 11 and 12—have been cited as being "environmentally harmful" by contributing to ozone depletion.

In an important move by one of America's highly visible companies, McDonald's Corp. agreed in August to discontinue its use of polystyrene food boxes and trays made with any type of CFCs. The company's planned 18-month phase-out of these containers at domestic restaurants may be extended to McDonald's international outlets as well.

The change affects only the manufacturing process. McDonald's will continue to use similar foam polystyrene products, and consumers will not be able to see any difference in the packaging itself.

"We have completed our review with considerable input from our packaging suppliers and other industry experts," said Clifford Raber, McDonald's vice president for governmental relations, "and have concluded that there are reasonable alternatives to possibly harmful CFCs."

These alternatives have been in development since 1980. Amoco Foam Products and Mobil Chemical, two major suppliers of foam polystyrene, have been cutting back on their use of CFCs as a blowing agent.

Amoco has already switched to a proprietary hydrocarbon agent for all its foam food container products.

Mobil Chemical uses three types of blowing agents: a hydrocarbon product, a combination of isopentane and CO_2, and CFCs. Hydrocarbon-based foam blowing is cur-

Foamed polystyrene packages made with alternatives to CFCs have virtually the same properties as those made with CFCs, according to industry experts.

rently limited to containers that do not require high-performance characteristics. Mobil's fast-food containers use the isopentane blend, and food trays for breakfast items such as scrambled eggs and sausage are still manufactured with CFCs.

The physical characteristics of PS food containers made with alternative blowing agents are not radically different from those made with CFCs, according to George Gaylo, manager of foams manufacturing for Mobil Chemical.

Gaylo said Mobil currently uses CFCs for less than 15 per cent of its overall foam polystyrene production, and that the company will be completely phased-out of CFC-blown products by the end of 1988.

Currently, the House Ways and Means Committee and the Senate Finance Committee are considering a proposal to tax the use of CFCs based on their ozone depletion potential. The proposed tax would start at $1 per pound next year and rise to $3 per pound in 1990. Similar taxing and banning legislation is pending in a number of state and local jurisdictions.

Many manufacturers, suppliers and consumers of foam polystyrene are expressing dismay at what they believe is the misplaced concern of these legislators. They point out that more than 60 per cent of all foam packaging is already made without CFCs.

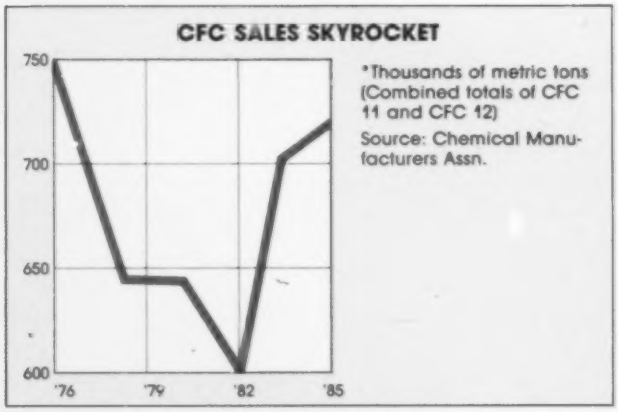
Most users agree that the high visibility of the foam PS packaging has magnified the problem in the eyes of government regulators.

"Your visibility is worse than your real share of the problem," said Bill Franklin, solid-waste disposal consultant. Franklin recently spoke at an environmental seminar sponsored by the Foodservice and Packaging Institute. To combat the misconceptions, Franklin said it will be necessary to develop figures and statistics showing the real relationship of the packaging to the problem. ■

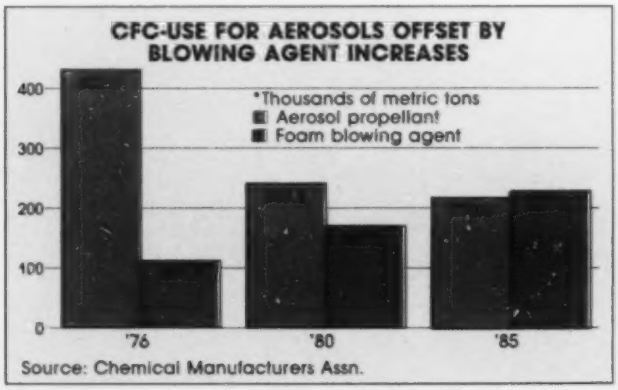
PLEASE RATE THIS ARTICLE

How would you rate this article? To reply, circle the appropriate number on the reader service card:

Outstanding	460
Above Average	461
Average	462
Below Average	463



The ban on CFC propellants has been offset by its growth for cooling systems and foam blowing agents.



Extensive use of CFCs for manufacturing foam plastics increased 106 per cent from 1976-1985.

NOTE

ONLY THE FOLLOWING PAGES OF THIS

PUBLICATION HAVE BEEN FILMED

Cov. 1, pgs. 5, 6, 69-72,

76, 77, 80, 81, 83, 87, 89-91,

94, 95, 98, 99, 103